



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2893-1
Job Sheet 178609



Part No: D2893-1

Job Qty: 12 ea

Part Name: Support



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/5/18

Job Tracking No:

Due Date: 6/22/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV C IPP: C 02.11.26 Reformat; Added P/O KJ IPP D 06.04.19 removed alodine EC IPP Rev:E Added priming as per Rev B 07-04-30 JLM IPP F 08.03.19 Re-format EC verified by: DD IPP Rev:G 08-05-15 add QC14 DD verified by:EC IPP Rev:H 11.08.04 as per dwg rev.C DD verf:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	12 Ea	6/22/18	6/22/18	0.00	0.00	Start Up Machining-1		Kt 2018-06-21
100	CNC Vertical Machining	12 pcs	6/22/18	6/22/18	0.33	23.53	HAAS1-2		Kt 2018-06-21
120	QC	12 pcs	6/22/18	6/22/18	0.00	0.00	QC8 Machining-1		18/06/23
130	Crosstubes	12 pcs	6/22/18	6/22/18	0.00	2.00	Crosstubes-2		AS JUN 30 2018
140	QC	12 pcs	6/22/18	6/22/18	0.00	0.00	QC3		38
170	Packaging	12 pcs	6/22/18	6/22/18	0.00	0.00	Packaging3-1	LG050	AS JUN 30 2018
180	QC21-SA	12 Ea	6/22/18	6/22/18	0.00	0.00	QC21		21 JUL 05 2018

Part Op 100 - 1-Machine as per Folio FA081

Descriptions: 130 - Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg.

170 - LOCATION : LG050

138676 exp 11/18

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
DSK078	D2893-1 Turning Detail	6 Ea (.5 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	DSK078	6	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	2.750 Support	2.985Inches	+ 0.020 - 0.000	3.005 2.985	
2	2.750 Support	0.440Inches	+ 0.020 - 0.000	0.460 0.440	
3	2.750 Support	0.125Inches	+ 0.035 - 0.000	0.160 0.125	
4	2.750 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040	
5	2.750 Support	0.188Inches	+ 0.005 - 0.000	0.193 0.188	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

6	2.750 Support	0.125Inches	+ 0.035 - 0.000	0.160 0.125
7	2.750 Support	0.140Inches	+ 0.020 - 0.000	0.160 0.140
8	2.750 Support	1.360Inches	+ 0.040 - 0.000	1.400 1.360
9	2.750 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040
10	2.750 Support	1.190Inches	+ 0.040 - 0.000	1.230 1.190
11	2.750 Support	0.010Inches	+ 0.010 - 0.000	0.020 0.010
12	2.750 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053
13	2.750 Support	0.240Inches	+ 0.020 - 0.000	0.260 0.240
14	2.750 Support	2.518Inches	+ 0.020 - 0.000	2.538 2.518
15	2.750 Support	84.390Inches	+ 6.000 - 0.000	90.390 84.390
16	2.750 Support	0.261Inches	+ 0.005 - 0.000	0.266 0.261
17	2.750 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053

Plex 6/5/18 7:16 AM Dart.lajeunesse.marie

DART
AEROSPACE

Container No: S083028



Part: D2893-1

Job No: 178609

Serial No/Batch: S083028

Revision:

Inspector:

Exp Date:

Instructions:

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/21/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval				
Description Work Order Deviation			Disposition					
						Completed By		
						Lead hand / Supervisor Approval Verification		
QC / QA Coordinator Approval								

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893		Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.993	2.993	2.998	2.999	2.999
AB	0.440	0.460		.455	.458	.455	.460	.459
AC	0.125	0.160		.135	.136	.139	.136	.137
AD	0.040	0.060		.050	.051	.052	.052	.052
AE	0.188	0.193		.189	.188	.188	.188	.188
AF	0.125	0.160		.135	.139	.140	.137	.137
AG	0.140	0.160		.155	.150	.147	.144	.144
AH	1.360	1.400		1.376	1.373	1.376	1.375	1.375
AI	0.040	0.060		.046	.049	.048	.045	.045
AJ	1.190	1.230		1.215	1.215	1.215	1.213	1.213
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063 R	.063 R	.063 R	.063 R	.063 R
AM	0.240	0.260		.250 R	.250 R	.250 R	.250 R	.250 R
AN	2.518	2.538		2.534	2.538	2.538	2.538	2.538
AO	84.39	90.39		87.00	87.00	87.00	87.00	87.00
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063 R	.063 R	.063 R	.063 R	.063 R
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>M.M.</i>	Date:	2018/06/19
Audited by:	<i>ML</i>	Date:	18/06/23
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number: D2893-1	
Inspection Dwg: D2893		Rev: C	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6	7	8	9	10
HAAS Section								
AA	2.985	3.005		2.998	2.999	2.999	2.995	2.995
AB	0.440	0.460		.460	.460	.460	0.460	0.460
AC	0.125	0.160		.138	.138	.137	0.160	0.160
AD	0.040	0.060		.051	.051	.051	0.050	0.050
AE	0.188	0.193		.188	.188	.188	0.188	0.188
AF	0.125	0.160		.136	.135	.135	0.136	0.136
AG	0.140	0.160		.146	.145	.145	0.145	0.145
AH	1.360	1.400		1.375	1.375	1.376	1.374	1.374
AI	0.040	0.060		.050	.050	.050	0.050	0.050
AJ	1.190	1.230		1.215	1.216	1.216	1.215	1.215
AK	0.010	0.020		.015	.015	.015	0.015	0.015
AL	0.053	0.073		.063 R	.063 R	.063 R	0.063	0.063
AM	0.240	0.260		.250 R	.250 R	.250 R	0.250	0.250
AN	2.518	2.538		2.538	2.537	2.537	2.525	2.525
AO	84.39	90.39		87.00	87.00	87.00	87.39	87.39
AP	0.261	0.266		.261 Ø	.261 Ø	.261 Ø	0.261	0.261
AQ	0.053	0.073		.063 R	.063 R	.063 R	0.063	0.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>M.M.</i>	Date:	<i>20/06/20</i>
Audited by:	<i>mk</i>	Date:	<i>18/06/23</i>
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	3	4	5
HAAS Section								
AA	2.985	3.005		2.998	2.998			
AB	0.440	0.460		0.460	0.460			
AC	0.125	0.160		0.160	0.160			
AD	0.040	0.060		0.050	0.050			
AE	0.188	0.193		0.188	0.188			
AF	0.125	0.160		0.135	0.135			
AG	0.140	0.160		0.140	0.140			
AH	1.360	1.400		1.375	1.375			
AI	0.040	0.060		0.051	0.051			
AJ	1.190	1.230		1.215	1.215			
AK	0.010	0.020		0.015	0.015			
AL	0.053	0.073		0.063	0.063			
AM	0.240	0.260		0.250	0.250			
AN	2.518	2.538		2.525	2.525			
AO	84.39	90.39		87.39	87.39			
AP	0.261	0.266		0.261	0.261			
AQ	0.053	0.073		0.063	0.063			
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>K7</i>	Date:	<i>2108-06-21</i>
Audited by:	<i>mf</i>	Date:	<i>18/06/23</i>
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	<i>[Signature]</i>